

WHAT IS CLAIMED IS:

1. A method of providing call progress to a calling party, comprising:
receiving a circuit-switched call origination message in a home legacy mobile station domain,
wherein circuit-switched the call origination message specifies a destination terminal device having a
5 directory number assigned with the home legacy mobile station domain;
identifying a serving legacy mobile station domain in which the terminal device is registered;
transmitting, from the home legacy mobile station domain to the serving legacy mobile station
domain, a call origination message that requests the terminal device to a call with the calling party;
receiving, by the home legacy mobile station domain from the serving legacy mobile station
10 domain, a first message that requests the home legacy mobile station domain to provide a call progress
signal to the calling party; and
providing, by the home legacy mobile station domain, a first call progress signal to the calling
party.
- 15 2. The method of claim 1, wherein receiving the circuit-switched call origination message
comprises receiving an Integrated Services User Part call origination message.
3. The method of claim 1, wherein transmitting the call origination message comprises
transmitting a session initiation protocol INVITE message that allows for encapsulation of Integrated
20 Services User Part information.
4. The method of claim 1, wherein receiving the first message comprises receiving a
Session Initiation Protocol 180 Ringing provisional response message.
- 25 5. The method of claim 1, further comprising receiving, by the home legacy mobile station
domain from the serving legacy mobile station domain, a second message providing a request for the
home legacy mobile station domain to discontinue the first call progress signal, wherein the serving
legacy mobile station domain sends the second message after receiving a paging response from the
terminal device.
- 30 6. The method of claim 5, wherein receiving the second message comprises receiving a
session initiation protocol provisional response message.
7. The method of claim 6, further comprising providing, by the serving legacy mobile
35 station domain, a second call progress signal to the calling party after the home legacy mobile station
domain discontinues the first call progress signal.

8. A computer-readable medium having computer-executable instructions for execution by a processing system, the computer-executable instructions for performing a method of providing call progress to a calling party, comprising:

instructions for interpreting a circuit-switched call origination message in a home legacy mobile station domain, wherein the circuit-switched call origination message specifies a destination terminal device having a directory number assigned to the home legacy mobile station domain;

instructions for identifying a serving legacy mobile station domain in which the terminal device is registered;

instructions for constructing and transmitting, from the home legacy mobile station domain to the serving legacy mobile station domain, a call origination message that requests the terminal device to join a call with the calling party;

instructions for receiving, by the home legacy mobile station domain from the serving legacy mobile station domain, a first message that requests the home legacy mobile station domain to provide a call progress signal to the calling party; and

instructions for providing, by the home legacy mobile station domain, a first call progress signal to the calling party.

9. The computer-readable medium of claim 8, wherein the instructions for interpreting a circuit-switched call origination message comprise instructions for interpreting an Integrated Services User Part call origination message.

10. The computer-readable medium of claim 8, wherein the instructions for constructing and transmitting the call origination message comprise instructions for constructing and transmitting a session initiation protocol INVITE message that allows for encapsulation of Integrated Services User Part information.

11. The computer-readable medium of claim 8, wherein the instructions for receiving the first message comprise instructions that receive a session initiation protocol 180 Ringing provisional response message.

12. The computer-readable medium of claim 8, further comprising instructions for receiving and interpreting, by the home legacy mobile station domain from the serving legacy mobile station domain, a second message providing a request for the home legacy mobile station domain to discontinue the first call progress signal, wherein the serving legacy mobile station domain sends the second message after receiving a paging response from the terminal device.

13. The computer-readable medium of claim 12, wherein the instructions for receiving and interpreting the second message comprise instructions that receive and interpret a Session Initiation Protocol provisional response message.

14. The computer-readable medium of claim 13, further comprising instructions for providing, by the serving legacy mobile station domain, a second call progress signal to the calling party after the home legacy mobile station domain discontinues the first call progress signal.

15. A telecommunications system for connecting a circuit-switched calling party and a terminal device registered in a legacy mobile station domain, comprising:

a serving legacy mobile station domain in which the terminal device is registered; and

a home legacy mobile station domain having a directory number of the terminal device assigned thereto that receives a circuit-switched call origination message from the calling party and transmits a call origination message to the serving legacy mobile station domain that requests the terminal device to join a call with the calling party and that, in response to receipt of a first message from the serving legacy mobile station domain that requests the home legacy mobile station to provide call progress to the calling party, provides a first call progress signal to the calling party.

16. The telecommunications system of claim 15, wherein the circuit-switched call origination message comprises an Integrated Services User Part call origination message.

17. The telecommunications system of claim 15, wherein the call origination message transmitted from the home legacy mobile station domain to the serving legacy mobile station domain comprises a Session Initiation Protocol INVITE message.

18. The telecommunications system of claim 15, wherein the serving legacy mobile station domain comprises a serving mobile switching center emulation and the home legacy mobile station domain comprises a home mobile switching center emulation, and wherein the serving mobile switching center emulation transmits a second message to the home mobile switching center emulation that provides a request for the home legacy mobile station domain to discontinue the first call progress signal provided to the calling party.

19. The telecommunications system of claim 18, wherein the second message comprises a session initiation protocol provisional response message.

20. The telecommunications system of claim 18, wherein the serving legacy mobile station domain provides a second call progress signal to the calling party responsive to the home legacy mobile station domain discontinuing the first call progress signal.